

### **Remarks/Arguments**

Applicants have received and carefully reviewed the Final Office Action of the Examiner mailed November 4, 2008 and the Advisory Action mailed January 28, 2009. Currently, claims 1-28, 30-38, 43, 50-63, 65, 66, 69-76, and 78-87 remain pending of which claims 7, 8, 14, 17-23, 26, 27, 33, 43, 51, 53, 55, 58, 59, 62, 65, 66, 69, 70, 75, 86, 78, and 79 were previously withdrawn from consideration. Claims 1-6, 9-13, 15, 16, 24, 25, 28, 30-32, 34-38, 50, 52, 54, 56, 57, 60, 61, 63, 71-74, and 80-87 have been rejected. In this amendment, claims 1, 50, and 61-62 have been amended and claims 5 and 60 have been canceled. Favorable consideration of the following remarks is respectfully requested.

### ***Advisory Action***

In the Advisory Action mailed January 28, 2009, the Examiner indicated that the Amendment After Final filed on December 29, 2008 would not be entered. However, the Examiner indicated that the rejection of claim 1 (including elements of previous claim 5) was overcome by Applicant's reply.

### ***Claim Rejections – 35 USC § 102***

In paragraph 3 of the Final Office Action, claims 1-6, 9-13, 15, 16, 24, 25, 28, 30-32, 34-38, 71-74, and 80-86 were rejected under 35 U.S.C. 102(e) as being anticipated by Couvillon (U.S. Publication No. 2003/0236531). After careful review, Applicant must respectfully traverse this rejection.

As noted above, the Examiner indicated that the rejection of claim 1 was overcome. For the Examiner's convenience, the Applicant's previous reply with respect to claim 1 has been reproduced. Claim 1 recites:

1. (Currently Amended) A medical device comprising (a) an elongate body adapted for insertion into a body lumen, said elongate body having distal and proximal ends and an axis; and (b) an active region comprising a conductive polymer disposed over the elongate body such that the medical device is expanded in at least one radial dimension relative to said axis upon volumetric expansion of the conductive polymer within the active region; wherein said active region surrounds said elongate body in the form of a continuous circumferential band.

Without conceding the correctness of the Examiner's rejection, Applicant has amended claim 1

to include elements of original claim 5, now canceled. Nowhere does Couvillon appear to teach or suggest “wherein said active region surrounds said elongate body in the form of a continuous circumferential band”, as recited in claim 1. Further, nowhere does the Examiner appear to address this limitation in the Final Office Action.

In contrast to claim 1, Figures 2A-4 of Couvillon (relied on by the Examiner) appear to teach a capture device including one or more apertures and one or more electroactive polymer actuators 110 that open and close the one or more apertures 103 based on control signals sent from a control unit. The one or more electroactive polymer actuators 110 appear to be wrapped around the tubular structural element 102 so that they extend from one side of the aperture 103 around the tubular structural element 102 to the opposite side of the aperture 103. As such, the electroactive polymer actuators 110 of Figures 2A-4 do not appear to be continuous, in contrast to claim 1.

As the Examiner is aware, “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). (MPEP § 2131). Thus, Couvillon appears to fail to teach each and every element of claim 1. Further, there appears to be no reason to modify the teachings of Couvillon to arrive at the claimed invention. Therefore, for at least these reasons, claim 1 is believed to be patentable over Couvillon. For similar reasons and others, claims 2-4, 6, 9-13, 15, 16, 24, 25, 71-74, and 80-84, which depend from claim 1 and include additional limitations, are believed to be patentable over Couvillon.

Turning to claim 28, which recites:

28. (Previously Presented) A medical device comprising (a) an elongate body adapted for insertion into a body lumen, said elongate body having distal and proximal ends and an axis; (b) a balloon; and (c) an active region comprising a conductive polymer disposed over the elongate body and beneath the balloon, said active region being adapted to radially advance at least a portion of the balloon when the balloon is in a substantially uninflated state by the volumetric expansion of the conductive polymer within the active region.

Nowhere does Couvillon appear to teach or suggest “an active region comprising a conductive polymer disposed over the elongate body and beneath the balloon”, as recited in claim 28.

Nowhere in rejection of claim 28 under 35 U.S.C. § 102(e) does the Examiner appear to cite any portion of Couvillon as teaching or suggesting “an active region comprising a

conductive polymer disposed over the elongate body and beneath the balloon", as recited in claim 28. Instead, as discussed above, Couvillon appears to teach a capture device 100 having "the actuators are wrapped around the tubular structural element 102" (paragraph 0049). Clearly, this does not teach or suggest beneath the tubular structural element 102. As the Examiner is aware, "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). (MPEP § 2131). Therefore, Couvillon appears to fail to teach each and every element of claim 28. Thus, for at least these reasons, claim 28 is believed to be patentable over Couvillon. For similar reasons and others, claims 30-32 and 34-38, which depend from claim 28 and include additional limitations, are believed to be patentable over Couvillon.

#### ***Claim Rejections – 35 USC § 103***

In paragraph 5 of the Final Office Action, claims 1, 5, 9-11, 15, 16, 24, 25, 28, 30-38, 73, 74, 80, and 84-86 were rejected under 35 U.S.C. 103(a) as being unpatentable over Maseda (U.S. Patent No. 6,514,237) in view of Couvillon (U.S. Publication No. 2003/0236531). After careful review, Applicant must respectfully traverse this rejection.

Turning to claim 1, which recites:

1. (Currently Amended) A medical device comprising (a) an elongate body adapted for insertion into a body lumen, said elongate body having distal and proximal ends and an axis; and (b) an active region comprising a conductive polymer disposed over the elongate body such that the medical device is expanded in at least one radial dimension relative to said axis upon volumetric expansion of the conductive polymer within the active region; wherein said active region surrounds said elongate body in the form of a continuous circumferential band.

As discussed previously, nothing in Couvillon appears to teach or suggest "wherein said active region surrounds said elongate body in the form of a continuous circumferential band", as recited in claim 1. Further, nothing in Maseda appears to teach or suggest "wherein said active region surrounds said elongate body in the form of a continuous circumferential band".

In the Final Office Action, the Examiner relies on element 308 of Figure 3B of Maseda as teaching the claimed band. However, Maseda teaches that element 308 is a single composite strand wrapped in a helical manner around the entire outer tubular body. Applicant respectfully

asserts that this is not the claims “continuous circumferential band”. Therefore, for at least these reasons, claim 1 is believed to be patentable over Maseda and Couvillon. For similar reasons and others, claims 9-11, 15, 16, 24, 25, 73, 74, 80, and 84-86, which depend from claim 1 and include additional limitations, are believed to be patentable over Maseda and Couvillon.

Turning to claim 28, which recites:

28. (Previously Presented) A medical device comprising (a) an elongate body adapted for insertion into a body lumen, said elongate body having distal and proximal ends and an axis; (b) a balloon; and (c) an active region comprising a conductive polymer disposed over the elongate body and beneath the balloon, said active region being adapted to radially advance at least a portion of the balloon when the balloon is in a substantially uninflated state by the volumetric expansion of the conductive polymer within the active region.

Nowhere does Couvillon or Maseda appear to teach or suggest “an active region comprising a conductive polymer disposed over the elongate body and beneath the balloon”, as recited in claim 28.

In the Final Office Action, the Examiner asserts that disposing the conductive polymer beneath the balloon is an obvious design choice. Applicant must respectfully disagree. Applicant respectfully asserts that placing the conductive polymer under the balloon instead of on the balloon is not a mere matter of design choice, but instead, may impact the functionality and/or operation of the device. For example, placing the conductive polymer under the balloon may enable a balloon to have multiple actuation mechanisms. For example, the balloon may be at least partially expanded by the conductive polymers and the balloon may be at least partially expandable by an inflation media. Clearly, with such an increase in functionality, the claimed limitation is clearly not a mere design choice.

Further, MPEP § 2144.04 states:

The mere fact that a worker in the art could rearrange the parts of the reference device to meet the terms of the claims on appeal is not by itself sufficient to support a finding of obviousness. The prior art must provide a motivation or reason for the worker in the art, without the benefit of appellant’s specification, to make the necessary changes in the reference device.

Applicant respectfully asserts that there is no motivation or reason to make the suggested modification in the prior art. In the Advisory Action, the Examiner cites to column 8, lines 6-10 of Maseda et al. which broadly states that any section of the balloon catheter 110 may be configured as described above. However, nothing in this broad, general statement suggests

providing the conductive polymer beneath the balloon. Thus, Applicant respectfully asserts that “an active region comprising a conductive polymer disposed over the elongate body and beneath the balloon” is not a mere matter of design choice. Therefore, for at least these reasons, claim 28 is believed to be patentable over Maseda and Couvillon. For similar reasons and others, claims 30-38, which depend from claim 28 and include additional limitations, are believed to be patentable over Maseda and Couvillon.

In paragraph 6 of the Final Office Action, claim 87 was rejected under 35 U.S.C. 103(a) as being unpatentable over Maseda (U.S. Patent No. 6,514,237) in view of Couvillon (U.S. Publication No. 2003/0236531) and further in view of Sharrow (U.S. Patent No. 4,793,359). After careful review, Applicant must respectfully traverse this rejection. As discussed previously, Couvillon is believed to be disqualified as prior art. Therefore, withdrawal of the rejection is respectfully requested.

In paragraph 7 of the Final Office Action, claims 50, 54, 56, 57, 60, 61, and 63 were rejected under 35 U.S.C. 103(a) as being unpatentable over Maseda (U.S. Patent No. 6,514,237). After careful review, Applicant must respectfully traverse this rejection.

Turning to claim 50, which recites:

50. (Currently Amended) A balloon catheter comprising: (a) an insertable body adapted for insertion into a body lumen of a patient; (b) a device lumen within said insertable body; (c) an inflatable balloon, wherein the interior of said balloon is in fluid communication with said device lumen, and (d) one or more electrically actuated members disposed along at least a portion of the length of said device lumen, said one or more electrically actuated members being adapted to transform at least a portion of the length of said device lumen between (i) a radially expanded state and (ii) a radially contracted state in which said insertable body is more readily inserted into said body lumen of said patient; wherein said one or more electrically actuated member are disposed between the device lumen and the inflatable balloon.

Nowhere does Maseda appear to teach or suggest “wherein said one or more electrically actuated member are disposed between the device lumen and the inflatable balloon”, as recited in claim 50.

As noted above, the Examiner asserted in the Final Office Action that disposing the conductive polymer beneath the balloon is an obvious design choice. Applicant must respectfully disagree. Applicant respectfully asserts that placing the conductive polymer under the balloon instead of on the balloon is not a mere matter of design choice, but instead, may

impact the functionality and/or operation of the device. For example, placing the conductive polymer under the balloon may enable a balloon to have multiple actuation mechanisms. For example, the balloon may be at least partially expanded by the conductive polymers and the balloon may be at least partially expandable by an inflation media. Clearly, with such an increase in functionality, "wherein said one or more electrically actuated member are disposed between the device lumen and the inflatable balloon" is not a mere matter of design choice. Therefore, for at least these reasons, claim 50 is believed to be patentable over Maseda. For similar reasons and others, claims 54, 56, 57, 60, 61, and 63, which depend from claim 50 and include additional limitations, are believed to be patentable over Maseda.

### ***Conclusion***

In view of the foregoing, all pending claims are believed to be in a condition for allowance. Reexamination and reconsideration are respectfully requested. Issuance of a Notice of Allowance in due course is anticipated. If a telephone conference might be of assistance, please contact the undersigned attorney at (612) 677-9050.

Respectfully submitted,

Date: February 4, 2009



Scot Wickhem, Reg. No. 41,376  
CROMPTON, SEAGER & TUFTE, LLC  
1221 Nicollet Avenue, Suite 800  
Minneapolis, Minnesota 55403-2420  
Telephone: (612) 677-9050  
Facsimile: (612) 359-9349  
[Scot.Wickem@cstlaw.com](mailto:Scot.Wickem@cstlaw.com)